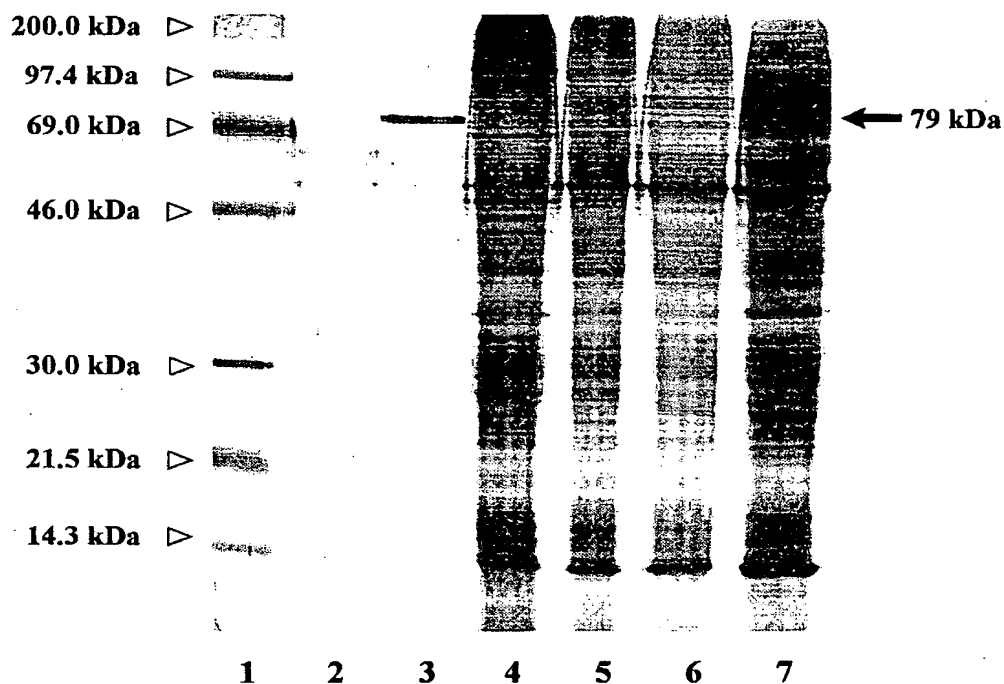




1/20

FIG. 1



2/20

FIG. 2

Peptide 1 KVTIFFGTQK

Peptide 2 KVVDLDDYAADDDEFEEK
E

Peptide 3 KWFTEVAK
D

Peptide 4 KVVDEIIVEK

Peptide 5 KYADLLNFPK

Peptide 6 KAALHALAK

Peptide 7 KDVHRTLHTIVQEQGSLDSSK

3/20

FIG. 3

Arabidopsis thaliana .. 350 GSPLES-AVPPPFPGPCT
Catharanthus roseus .. 389 GTPLAGSSLPPFP-PCT
Helianthus tuberosus .. 331 GTPLGGPTLQPPFP-PCT
Vigna radiata .. 366 GTSLGG-SLLPPFPGPCS
Vicia sativa .. 367 GTSLGG-SLLPPFPGPCT
* . * .. **** *

→

LGTGLARYADLLNPPRKSALVALAAYATEPSEARKLKHLTSPDGKD
LRTALTRYADLLNTPKKSALLALAAYASDPNEADRLKYLASPAGKD
LRKALTNYADLLSSPKKSTLLALAAEASDATEADRLQFLASREGKD
LRTALARYADLLNPPRKAALLALATEASEPS-DKRLXFLSSPQGKD
VRTALACYADLLNPPRKAIVALAAHASEPSEARRLKFLSSPQGKD
. * ***** * . * . *** * . * ** ***

EYSQWIVASQRSLLLEVMAAFPSAKPPLGVFFAAIAPRLQPRYYSIS
EYAQSLVANQRSLLLEVMAEFPSAKPPLGVFFAAIAPRLQPRFYSIS
EYAEWIVANQRSLLLEVMEAFPSAKPPLGVFFAAIAPRLQPRYYSIS
EYSKWVVGVSQRSLLLEVMAEFPSAKPPLGVFFAAIAPRLQPRYYSIS
EYSKWVVGVSQRSLLLEVMAADFPSAKPPLGVFFAAIAPRLQPRYYSIS
** . * ***** *** ***** ***** *****

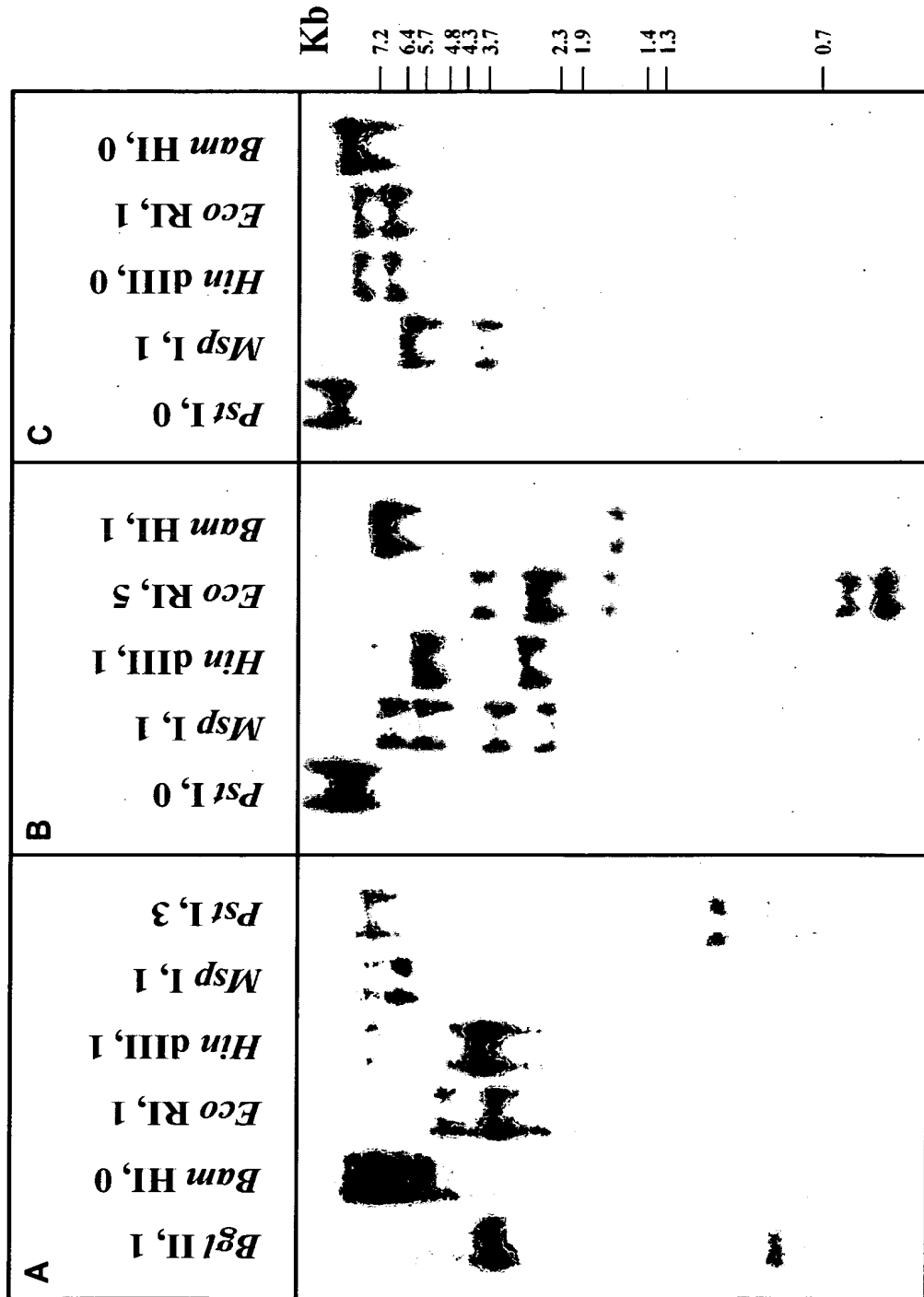
←

SCQDWAPSRVHVTSALVYGPTPTGRIHKGVCSTWMKNAVP 498..
SSPRMAPSRIHVTCALVYEKTPGGRIHKGVCSTWMKNAIP 537..
SSPKMVPNRIHVTCALVYEKTPGGRIHKGICSTWMKNAVP 479..
SSPRFAPQRVHVTCALVYGPTPTGRIHKGVCSTWMKNAIP 513..
SSPRFAPQRVHVTCALVEGPTPTGRIHKGVCSTWMKSATP 515..
* . * * . *** . *** ** ***** . ***** * *

←

4/20

FIG. 4



5/20

FIG. 5

1	MEQTAVKVSL	FDLFSSILNG	KLDPSNFSSD	SSAAILIENR	50
	MGSNNLANSI	ESMLG.ISIGSEYISD	P.....	EILMILTtai
	*	*	*	*	.IFIMVTTVA
					* **
51					100
	AVFIGCGFLY	VWRRSSNKSS	KIVETQKLIV	EKEPE.PEVD	DGKKKVtIFF
	SMLIGFGFFV	CMK.SSSSQS	KPIETYKPII	DKEEEEIEVD	PGKIKLtIFF
	** **	** *	* ** *	* ** *	* ** *
101					150
	GTQTGTAEgf	AKALAEeAKA	RYEKaIFKVI	DLDDYGADDD	EFEEKLKKET
	GTQTGTAEgf	AKALAEeIKA	KYKKAVVKVv	DLDDYAAEDD	QYEEKLKKES
	*****	*****	* ** *	*****	*****
151					200
	IALFFLATYg	DGEPTDNAAR	FYKWFTEGKE	REMWLQNLQf	GVFGLGNRQY
	LVFFMVATYg	DGEPTDNAAR	FYKWFtQEHE	RGEWLQQLTY	GVFGLGNRQY
	* ****	*****	*****	* ****	*****
201					250
	EHFNKVAKEV	DEILTEQGGK	RIVPVGLGDD	DQCIEDDFTA	WRELvWPELD
	EHFNKIAVDV	DEQLGKQGAK	RIVQVGLGDD	DQCIEDDFTA	WRELLWTELD
	*****	** *	*****	*****	*****
251					300
	QLLLDESdKT	SVSTPYTAIV	PEYRVVFHDA	TDASLQDKNW	SNANGYTVYD
	QLLKDEDAAP	SVATPYIATV	PEYRVVIHET	TVAALDDKHI	NTANGDVAFD
	*** **	** ****	*****	* ** *	*** *
301					350
	VQHPCrANVv	VKKELHTPVs	DRSCIHLFeD	ISGTGLTYET	GDHVGvYSEN
	ILHPCRTIVA	QQRELHKPKS	DRSCIHLFeD	ISGSSLTYET	GDHVGvYAEN
	**** *	*** **	*****	*** *****	***** *
351					400
	CVEVVEEAER	LLGYSSDTVF	SIHVDKEDGS	PISGSALAPP	FPTPCTLRtA
	CDETVEEAGK	LLGQPLDLLF	SIHTDKEDGS	PQGSS..LPP	FPGPCTLRSA
	* * ****	*** *	*** *****	* * **	* * **** *
401					450
	LTRYADLLNS	PKKAALHALA	AYASDPKEAE	RLRYLASPAG	KDEYAQWIVA
	LARYADLLNP	PRKASLIALS	AHASVPSEAE	RLRFLSSPLG	KNEYSKWVVG
	* *****	* ** *	* ** *	*** ** *	* ** *
451					500
	SQRSLLVVMA	EFPSAKAPIG	VFFAAVAPRL	LPRYYSISSS	NRMVPSRIHV
	SQRSLLeIMA	EFPSAKPPLG	VFFAAVAPRL	PPRYYSISSS	PKFAPSRIHV
	*****	*****	*****	*****	*****
501					550
	TCALVHEKTP	AGRVHKGVCs	TWMKNSVSLE	ENHDCSSWAP	IFVRQSNFKL
	TCALVYGQSP	TGRFHRGVCS	TWMKHAVPQD	S.....WAP	IFVRTSNFKL
	*****	** * ****	**** *	***	*****
551					600
	PADSTVPIIM	IGPGTGLAPF	RGFMQERLAL	KNSGVELGPA	ILFFGCRNRQ
	PADPSTPIIM	VGPGTGLAPF	RGFLQERMAL	KENGAQLGPA	VLFFGCRNRN
	*** ****	*****	*** ** *	* * ****	*****
601					650
	MDYIYEEELN	NFVKEGAISE	VVVAFSREGA	TKEYVQHKMA	EKASYIWEMI
	MDFIYEDELN	NFVERGVISe	LVIAFSREGE	KKEYVQHKMM	EKATDVWNVI
	** *** *	*** * ****	* *****	*****	*** * *
651					700
	SQGAYLYVCG	DAKGMArDVH	RTLHTIAQEQ	GSLDNSKTES	LVKNLQMDGR
	SGDGYLYVCG	DAKGMArDVH	RTLHTIAQEQ	GSMESSAAEA	AVKKLQVEER
	* *****	*****	*****	** * *	* ** *
701					
	YLRDVW				
	YLRDVW				

6/20

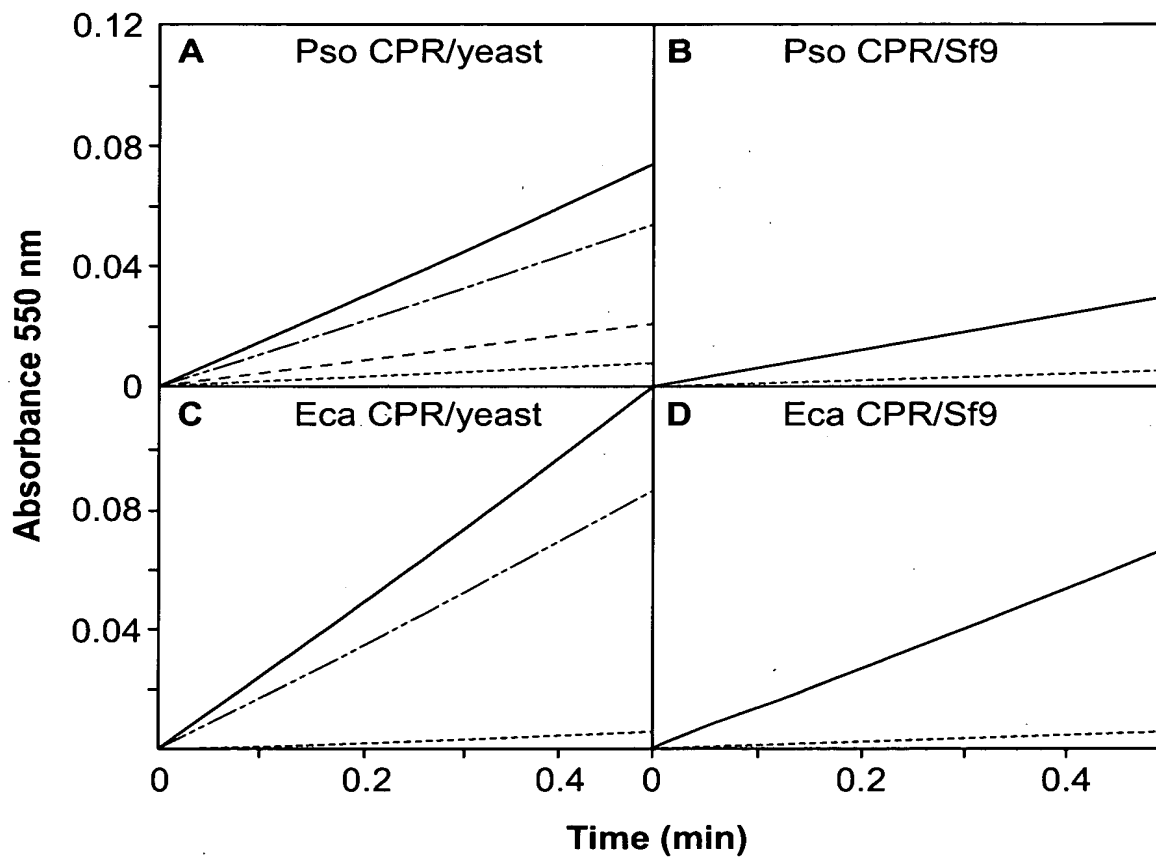
FIG. 6a

CGGCACGAGCTTGTTAGTATCTTCTAGGGTTTGAAAGAAGCAGGAGAGCAAAAGTCGAATCTACTTGAAATACAT
TCGATTGCTTCTCTGTTTAAAGCTTCAGAGTCTCTGCTAATTATGGGTTTTCGAATAAATTTAGCTAATTCGATTGAATCGA
TGTTAGGAATATCAATAGGATCAGATATATTTCTGACCCAAATTTTCATTATGGTCACAACCTGAGCTTCAATGCTGATT
GGATTGGTTTCTTCGCATGTATGAATCTTCGCTTCTCAATCAAAACCTATTGAAACCTTTAAACCAATAATTGATAA
AGAAGAAGAGGAGATTGAAGTTGATCTCTGGTAAATTAAGCTCACTATATTTTTTGGTACTCAGACTGGTACTGCTGAAG
GATTTGCTAAGGCATTGGCAGAAAGAAATTAAGGCAAGTACAAGAAAGCAGTTGTTAAAGTAGTTGACCTGGATGACTAT
GCAGCCGAGGATGATCAATATGAAGAGAAATTAAGAAAGAGTCTTTGGTGTITTTTCATGGTAGCCACTTATGGTGATGG
TGAGCCAACTGACAAATGCTGCGAGATTTTACAAATGGTTCACTCAGGAACATGAAGGGGAGAGTGGCTTCAGCAACTAA
CTTATGGTGTTTTGGTTTGGTTAACCGTCAATACGAGCATTTCAACAAGATCGCGGTAGATGTGGATGAGCAACTCGGT
AAACAAGGTGCAAGCGCATTTGTTCAAGTGGGCTCGGTGACGATGATCAATGCAATGAAGATGATTTTACTGCTTGGCG
AGAATTGTTGTGACTGAATTGGATCAGTTGCTCAAGATGAGGATGCTGCTCCTTCAGTGGCTACACCGTATATTGCTA
CTGTTCTGAATACAGGGTAGTGATTCACGAAACTACGGTCGCGGCTCTGGATGATAAACACATAAATACTGCTAACGGC
GATGTTGCATTTTGATATTCTCCATCTTGCAGAACCATTTGTTGCTCAACAAGAGAGCTCCACAACCCCAAGTCTGATAG
ATCCTGTATACATCTGGAGTTCGACATATCAGGCTCTTCCCTTACATATGAGACTGGAGATCATGTTGGTGTATTGCTG
AGAACTGCGATGAACCTGTCGAGGAAGCAGGGAAGCTGTTGGGTCAACCCCTGGATTGCTGTTTTCAATTCACACGGAT
AAAGAAGACGGGTCAACCCAGGGAAGCTCATTAACACCTCCTTTCCAGGTCTTGCACCTTACGATCTGCCCTAGCACG
CTATGCTGATCTTTTGAATCCTCTAGAAAGGCTTCTGATGCTCTGCTCCGCTCATGATCTGTACCCAGTGAAGCAG
AGAGATTGCGCTTTTGTGTCATCACCCTCTGGGAAGAAATGAGTATTCAAAATGGGTAGTTGGAAGTCAGAGGAGTCTTTTG
GAGATCATGGCCGAGTTTCCATCAGCAAAACCCCTCTTGGTGTCTTTGCTGCTAGTACCCCTCGCTTACCGCCTCG
ATACTATTCTATCTCATCTCTCTAAGTTTGTCTCCCTCAAGAAATTCATGTGACGTGTGCTTTAGTATATGTTCAAGCC
CTACCGGAAGGTTTACCGAGGAGTGTGTTGACATGGATGAAGCATGCAGTTCCTCAGGATAGCTGGGCTCCTATTTTT
GTTTCAACGTCAAACCTCAAGTTACAGCTGACCCCTCAACTCCAATTATCATGGTGGGACCTGGTACAGGGTTAGCTCC
TTTCAGAGGATTTCTGCAGGAACAATGGCCCTCAAGGAAATGGTGCTCAACTTGGCCCAAGCAGTCTTTTTTCGGAT
GTAGGAATCGTAATATGGACTTCATTTATCAAGACGAACATAACAACCTTCGTGGAACGAGGAGTAATTTTCGGAGCTAGTT
ATTGCTTTTTCACGTGAAGGGGAAAGGAATATGTTCAACATAAGATGATGGGAAGCAACGGATGTATGGAATGT
GATATCAGGGGACGGTTATCTCTATGTGTGGTATGCCAAGGGAATGGCCAGAGATGTCCATCGCACGTTGCATACCA
TTGCCCAAGAACAGGGACCCATGGAATCATCTGCTGCCGAAGCTGCAGTAAAGAACTCCAAGTTGAAGAACGATATCTA
AGAGATGCTGGTGATCGAATGTAGCTTGCCAAAGTCCCTTTTCTTGGCTGCTGTTTATGGTTCTATTATATTG
ATCCTCCTCTGAAAATCCCAAGCACTTCAGACATCCCTCGATTCTTCTCCAGTGGTTCAAAATCGAAGCTCGGTATAA
TTGAGAGCAGTGCAATTGTGACTACATGAGAAGCAACATCGAATACCATAGAAATAGAAAGATCAAAATTCCTTATCA
GAACAATGTTACAGGCAAACTGTGTTTGTCTAATAAATTCACACCATGGGTGGGACCAACACTGAAACAGTATTAG
CTATACCAACAAAGTTATGCAAGGAAACACAACTAGTAGATCTTCTCTTTGGATTGATTACTGTAAGTTCTAACCCAGA
TGATAGATTGTACTTAAAGATTCTTGTTTTCTTATGGCTACCGAGAGGAGTATTAATGCAATTTAGAGTTTGGAGAAAAA

8/20

FIG. 7

Heterologous Expression of P-450 Reductases



9/20

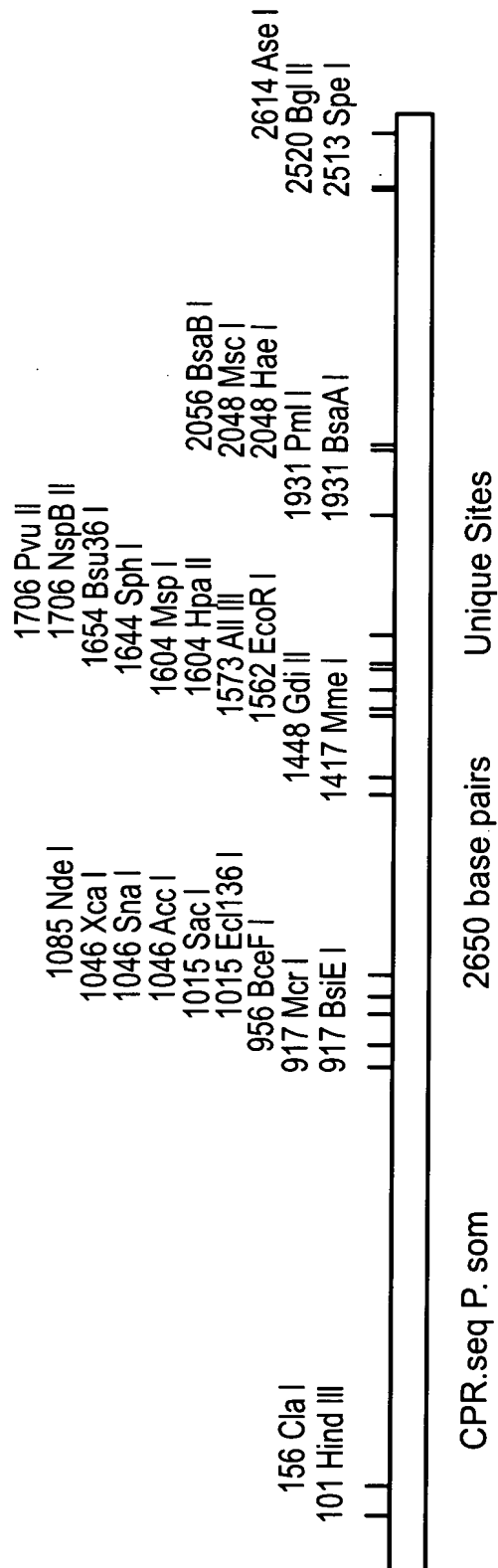


FIG. 8a

10/20

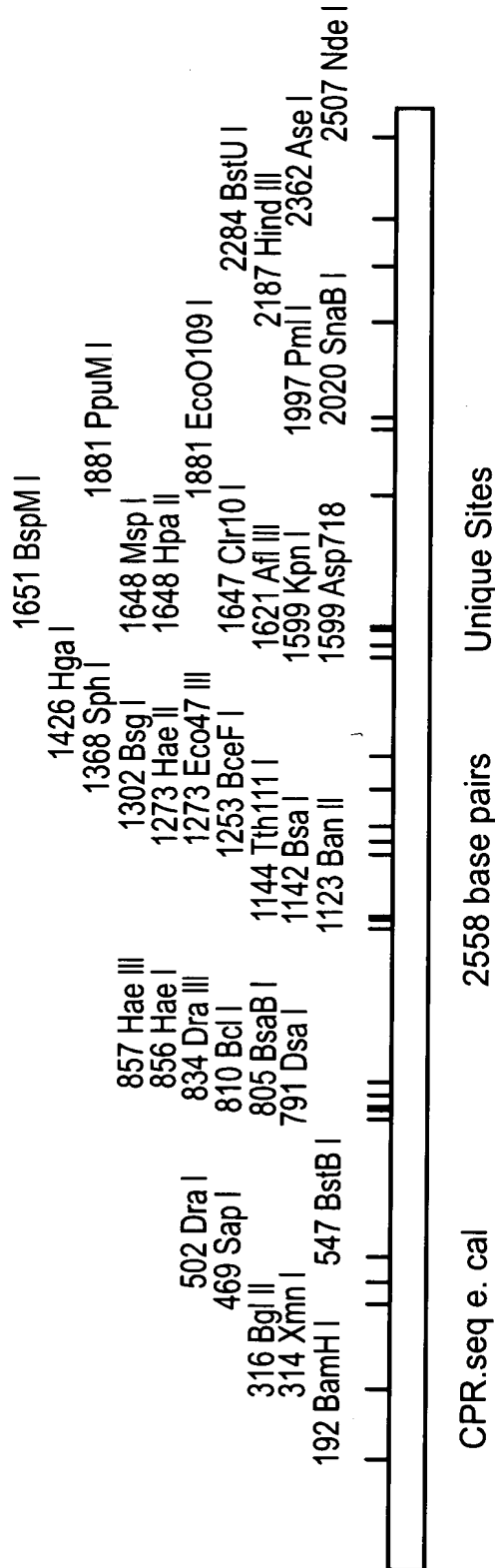


FIG. 8b

11/20

FIG. 9a (1)

1/1	31/11
CGG CAC GAG CTT GTT AGT ATC TTC TAG GGT	TTG AAA AGA AGC ACA GGG AGA AGC AAA AGT
R H E L V S I F * G	L K R S T G R S K S
61/21	91/31
CGA ATC TAC TTG AAA TAC ATT CGA TTG CTT	CTC TCT GTT TAA GCT TCA GAG TCT CTG CTA
R I Y L K Y I R L L	L S V * A S E S L L
121/41	151/51
ATT ATG GGT TCG AAT AAT TTA GCT AAT TCG	ATT GAA TCG ATG TTA GGA ATA TCA ATA GGA
I M G S N N L A N S	I E S M L G I S I G
181/61	211/71
TCA GAA TAT ATT TCT GAC CCA ATT TTC ATT	ATG GTC ACA ACT GTA GCT TCA ATG CTG ATT
S E Y I S D P I F I	M V T T V A S M L I
241/81	271/91
GGA TTT GGT TTC TTC GCA TGT ATG AAA TCT	TCG TCT TCT CAA TCA AAA CCT ATT GAA ACT
G F G F F A C M K S	S S S Q S K P I E T
301/101	331/111
TAT AAA CCA ATA ATT GAT AAA GAA GAA GAG	GAG ATT GAA GTT GAT CCT GGT AAA ATT AAG
Y K P I I D K E E E	E I E V D P G K I K
361/121	391/131
CTC ACT ATA TTT TTT GGT ACT CAG ACT GGT	ACT GCT GAA GGA TTT GCT AAG GCA TTG GCA
L T I F F G T Q T G	T A E G F A K A L A
421/141	451/151
GAA GAA ATT AAG GCA AAG TAC AAG AAA GCA	GTT GTT AAA GTA GTT GAC CTG GAT GAC TAT
E E I K A K Y K K A	V V K V V D L D D Y
481/161	511/171
GCA GCC GAG GAT GAT CAA TAT GAA GAG AAA	TTA AAG AAA GAG TCT TTG GTG TTT TTC ATG
A A E D D Q Y E E K	L K K E S L V F F M
541/181	571/191
GTA GCC ACT TAT GGT GAT GGT GAG CCA ACT	GAC AAT GCT GCG AGA TTT TAC AAA TGG TTC
V A T Y G D G E P T	D N A A R F Y K W F
601/201	631/211
ACT CAG GAA CAT GAA AGG GGA GAG TGG CTT	CAG CAA CTA ACT TAT GGT GTT TTT GGT TTG
T Q E H E R G E W L	Q Q L T Y G V F G L
661/221	691/231
GGT AAC CGT CAA TAC GAG CAT TTC AAC AAG	ATC GCG GTA GAT GTG GAT GAG CAA CTC GGT
G N R Q Y E H F N K	I A V D V D E Q L G
721/241	751/251
AAA CAA GGT GCA AAG CGC ATT GTT CAA GTG	GGG CTC GGT GAC GAT GAT CAA TGC ATT GAA
K Q G A K R I V Q V	G L G D D D Q C I E
781/261	811/271
GAT GAT TTT ACT GCT TGG CGA GAA TTG TTC	TGG ACT GAA TTG GAT CAG TTG CTC AAA GAT
D D F T A W R E L L	W T E L D Q L L K D
841/281	871/291
GAG GAT GCT GCT CCT TCA GTG GCT ACA CCG	TAT ATT GCT ACT GTT CCT GAA TAC AGG GTA
E D A A P S V A T P	Y I A T V P E Y R V
901/301	931/311
GTG ATT CAC GAA ACT ACG GTC GCG GCT CTG	GAT GAT AAA CAC ATA AAT ACT GCT AAC GGC
V I H E T T V A A L	D D K H I N T A N G
961/321	991/331
GAT GTT GCA TTT GAT ATT CTC CAT CCT TGC	AGA ACC ATT GTT GCT CAA CAA AGA GAG CTC
D V A F D I L H P C	R T I V A Q Q R E L
1021/341	1051/351

12/20

FIG. 9a (2)

CAC AAA CCC AAG TCT GAT AGA TCC TGT ATA	CAT CTG GAG TTC GAC ATA TCA GGC TCT TCC
H K P K S D R S C I	H L E F D I S G S S
1081/361	1111/371
CTT ACA TAT GAG ACT GGA GAT CAT GTT GGT	GTT TAT GCT GAG AAC TGC GAT GAA ACT GTC
L T Y E T G D H V G	V Y A E N C D E T V
1141/381	1171/391
GAG GAA GCA GGG AAG CTG TTG GGT CAA CCC	CTG GAT TTG CTG TTT TCA ATT CAC ACG GAT
E E A G K L L G Q P	L D L L F S I H T D
1201/401	1231/411
AAA GAA GAC GGG TCA CCC CAG GGA AGC TCA	TTA CCA CCT CCT TTC CCA GGT CCT TGC ACC
K E D G S P Q G S S	L P P P F P G P C T
1261/421	1291/431
TTA CGA TCT GCC CTA GCA CGC TAT GCT GAT	CTT TTG AAT CCT CCT AGA AAG GCT TCT CTG
L R S A L A R Y A D	L L N P P R K A S L
1321/441	1351/451
ATT GCT CTG TCC GCT CAT GCA TCT GTA CCC	AGT GAA GCA GAG AGA TTG CGC TTT TTG TCA
I A L S A H A S V P	S E A E R L R F L S
1381/461	1411/471
TCA CCT CTG GGA AAG AAT GAG TAT TCA AAA	TGG GTA GTT GGA AGT CAG AGG AGT CTT TTG
S P L G K N E Y S K	W V V G S Q R S L L
1441/481	1471/491
GAG ATC ATG GCC GAG TTT CCA TCA GCA AAA	CCC CCT CTT GGT GTT TTC TTT GCT GCA GTA
E I M A E F P S A K	P P L G V F F A A V
1501/501	1531/511
GCC CCT CGC TTA CCG CCT CGA TAC TAT TCT	ATC TCA TCC TCT CCT AAG TTT GCT CCC TCA
A P R L P P R Y Y S	I S S S P K F A P S
1561/521	1591/531
AGA ATT CAT GTG ACG TGT GCT TTA GTA TAT	GGT CAA AGC CCT ACC GGA AGG GTT CAC CGA
R I H V T C A L V Y	G Q S P T G R V H R
1621/541	1651/551
GGA GTG TGT TCG ACA TGG ATG AAG CAT GCA	GTT CCT CAG GAT AGC TGG GCT CCT ATT TTT
G V C S T W M K H A	V P Q D S W A P I F
1681/561	1711/571
GTT CGA ACG TCA AAC TTC AAG TTA CCA GCT	GAC CCC TCA ACT CCA ATT ATC ATG GTG GGA
V R T S N F K L P A	D P S T P I I M V G
1741/581	1771/591
CCT GGT ACA GGG TTA GCT CCT TTC AGA GGA	TTT CTG CAG GAA AGA ATG GCC CTC AAG GAA
P G T G L A P F R G	F L Q E R M A L K E
1801/601	1831/611
AAT GGT GCT CAA CTT GGC CCA GCA GTG CTC	TTT TTC GGA TGT AGG AAT CGT AAT ATG GAC
N G A Q L G P A V L	F F G C R N R N M D
1861/621	1891/631
TTC ATT TAT GAA GAC GAA CTA AAC AAC TTC	GTG GAA CGA GGA GTA ATT TCG GAG CTA GTT
F I Y E D E L N N F	V E R G V I S E L V
1921/641	1951/651
ATT GCC TTT TCA CGT GAA GGG GAA AAG AAG	GAA TAT GTT CAA CAT AAG ATG ATG GAG AAA
I A F S R E G E K K	E Y V Q H K M M E K
1981/661	2011/671
GCA ACG GAT GTA TGG AAT GTG ATA TCA GGG	GAC GGT TAT CTC TAT GTG TGT GGT GAT GCC
A T D V W N V I S G	D G Y L Y V C G D A
2041/681	2071/691

13/20

FIG. 9a (3)

AAG GGA ATG GCC AGA GAT GTC CAT CGC ACG TTG CAT ACC ATT GCC CAA GAA CAG GGA CCC
K G M A R D V H R T L H T I A Q E Q G P
2101/701 2131/711
ATG GAA TCA TCT GCT GCC GAA GCT GCA GTA AAG AAA CTC CAA GTT GAA GAA CGA TAT CTA
M E S S A A E A A V K K L Q V E E R Y L
2161/721 2191/731
AGA GAT GTC TGG TGA TCG AAT GTA GCT TGC CAA GTC CCC TTT TCT TGG CTG GTC TGT TTA
R D V W * S N V A C Q V P F S W L V C L
2221/741 2251/751
TGG TTT CTA TTA TAT TAT TGA TCC TCC TCT GAA AAT CCC AAG CAC TTC CAG ACA TCC CTC
W F L L Y Y * S S S E N P K H F Q T S L
2281/761 2311/771
GAT TCT TCC TCC AGT GGT TCC AAA TCG AAG CTC GGT ATA ATT GAG AGC AGT GCA ATT GTG
D S S S S G S K S K L G I I E S S A I V
2341/781 2371/791
ACT ACA TGA GAA GCA AAC ATC GAA TAC CAT AGA ATT AGA AAG ATC AAA ATT CTC TTA TCA
T T * E A N I E Y H R I R K I K I L L S
2401/801 2431/811
GAA CAA TGT TAC AGG CAA AAC TGT GTT TGC TTA ATA TAA ATT TCA CAC CAT GGG TGT GGA
E Q C Y R Q N C V C L I * I S H H G C G
2461/821 2491/831
CAA CAC TGA AAC AGT ATT AGC TAT ACC AAC AAA GTT ATG CAA GGA AAC ACA AAC TAG TTA
Q H * N S I S Y T N K V M Q G N T N * L
2521/841 2551/851
GAT CTT CTC TTT GGA TTG ATT ACT GTA AGT TCT AAC CAG ATG ATA GAT TGT ACT TAA AGA
D L L F G L I T V S S N Q M I D C T * R
2581/861 2611/871
TTC TTG TTT TCT TAT GGC TAC CGA GAG GAG TAT ATT AAT GCA TTT AGA GTT TTG AGA AAA
F L F S Y G Y R E E Y I N A F R V L R K
2641/881
AAA AAA AAA A
K K K

14/20

FIG. 9b (1)

```
1/1                               31/11
TTC TTC TTC CAA TCG CAT TCG AGA AAA TTC AAT CAT CTT CAA CTT CAG GAA GAA GAA TCA
F F F Q S H S R K F N H L Q L Q E E E S
61/21                             91/31
TCA GAA ACA CTG AAG CTC ATC ATC ATC CTT GAA ACT TAT CGT CTT TGT TTG ACC TTT TGA
S E T L K L I I I L E T Y R L C L T F *
121/41                           151/51
AAA ACT ATG GAA CAA ACT GCG GTT AAA GTC TCT TTG TTT GAT CTA TTT TCT TCG ATA CTT
K T M E Q T A V K V S L F D L F S S I L
181/61                           211/71
AAT GGA AAG TTG GAT CCG TCG AAC TTT TCT TCA GAT TCA AGT GCT GCT ATT TTG ATT GAA
N G K L D P S N F S S D S S A A I L I E
241/81                           271/91
AAT CGT GAG ATT TTA ATG ATC TTA ACA ACT GCT ATT GCT GTT TTT ATC GGT TGT GGT TTT
N R E I L M I L T T A I A V F I G C G F
301/101                          331/111
CTC TAC GTT TGG AGA AGA TCT TCA AAT AAG TCG AGT AAA ATT GTT GAA ACT CAG AAA TTG
L Y V W R R S S N K S S K I V E T Q K L
361/121                          391/131
ATC GTT GAA AAG GAA CCA GAA CCT GAA GTT GAT GAT GGA AAG AAG AAG GTT ACT ATC TTC
I V E K E P E P E V D D G K K K V T I F
421/141                          451/151
TTT GGT ACT CAA ACT GGT ACA GCT GAA GGA TTC GCA AAG GCA CTT GCT GAA GAA GCA AAA
F G T Q T G T A E G F A K A L A E E A K
481/161                          511/171
GCA AGA TAT GAA AAG GCA ATC TTT AAA GTG ATT GAT CTG GAT GAT TAC GGA GCA GAT GAT
A R Y E K A I F K V I D L D D Y G A D D
541/181                          571/191
GAT GAA TTC GAA GAG AAA TTG AAA AAG GAA ACT ATA GCT CTT TTC TTT TTG GCT ACC TAT
D E F E E K L K K E T I A L F F L A T Y
601/201                          631/211
GGA GAT GGT GAA CCT ACA GAT AAT GCT GCA AGA TTT TAT AAA TGG TTC ACA GAG GGA GAG
G D G E P T D N A A R F Y K W F T E G E
661/221                          691/231
AGG GAA ATG TGG CTC CAG AAT CTT CAA TTT GGT GTC TTC GGT CTA GGC AAT AGA CAG TAT
R E M W L Q N L Q F G V F G L G N R Q Y
721/241                          751/251
GAG CAT TTC AAT AAG GTG GCA AAG GAG GTG GAC GAG ATA CTC ACT GAA CAG GGT GGG AAG
E H F N K V A K E V D E I L T E Q G G K
781/261                          811/271
CGT ATT GTT CCC GTG GGT CTA GGA GAT GAT GAT CAA TGC ATA GAA GAT GAT TTC ACT GCG
R I V P V G L G D D D Q C I E D D F T A
841/281                          871/291
TGG CGG GAG TTG GTA TGG CCT GAA TTG GAT CAG TTG CTC CTT GAT GAA AGT GAT AAA ACA
W R E L V W P E L D Q L L L D E S D K T
901/301                          931/311
TCT GTT TCT ACT CCT TAC ACT GCC ATC GTA CCA GAA TAC AGG GTA GTA TTC CAT GAT GCT
S V S T P Y T A I V P E Y R V V F H D A
961/321                          991/331
ACT GAT GCA TCA CTA CAA GAC AAA AAC TGG AGC AAT GCA AAT GGC TAC ACT GTT TAC GAC
T D A S L Q D K N W S N A N G Y T V Y D
1021/341                        1051/351
```

15/20

FIG. 9b (2)

GTT CAA CAC CCA TGC AGA GCC AAT GTC GTT GTA AAG AAG GAG CTT CAC ACT CCA GTA TCT	
V Q H P C R A N V V V K K E L H T P V S	
1081/361	1111/371
GAT CGT TCT TGT ATT CAT CTG GAA TTT GAC ATT TCT GGC ACT GGG CTC ACG TAT GAA ACA	
D R S C I H L E F D I S G T G L T Y E T	
1141/381	1171/391
GGA GAC CAT GTC GGT GTT TAC TCT GAG AAT TGT GTT GAA GTT GTC GAG GAA GCA GAG AGG	
G D H V G V Y S E N C V E V V E E A E R	
1201/401	1231/411
CTA TTG GGT TAC TCA TCA GAC ACC GTT TTT TCA ATC CAT GTC GAT AAA GAG GAC GGC TCA	
L L G Y S S D T V F S I H V D K E D G S	
1261/421	1291/431
CCC ATT AGT GGA AGC GCT CTA GCT CCT CCT TTT CCA ACT CCC TGC ACT CTA AGA ACA GCA	
P I S G S A L A P P F P T P C T L R T A	
1321/441	1351/451
CTA ACA CGA TAC GCT GAT CTG TTG AAT TCT CCC AAG AAG GCT GCT CTG CAT GCT TTG GCT	
L T R Y A D L L N S P K K A A L H A L A	
1381/461	1411/471
GCT TAT GCA TCC GAT CCA AAG GAA GCG GAG CGA CTA AGG TAT CTT GCG TCT CCT GCT GGG	
A Y A S D P K E A E R L R Y L A S P A G	
1441/481	1471/491
AAG GAC GAA TAC GCC CAG TGG ATA GTA GCT AGT CAG AGA AGT CTG CTA GTG GTC ATG GCT	
K D E Y A Q W I V A S Q R S L L V V M A	
1501/501	1531/511
GAA TTC CCA TCA GCA AAG GCT CCA ATT GGG GTT TTC TTT GCA GCA GTA GCT CCT CGC TTG	
E F P S A K A P I G V F F A A V A P R L	
1561/521	1591/531
CTG CCA AGA TAC TAT TCT ATT TCA TCT TCC AAT AGG ATG GTA CCA TCT AGG ATT CAT GTC	
L P R Y Y S I S S S N R M V P S R I H V	
1621/541	1651/551
ACA TGT GCA TTG GTG CAT GAA AAA ACA CCG GCA GGT CGG GTT CAC AAA GGA GTG TGT TCA	
T C A L V H E K T P A G R V H K G V C S	
1681/561	1711/571
ACC TGG ATG AAG AAT TCT GTG TCT TTG GAA GAA AAC CAT GAT TGC AGC AGC TGG GCA CCA	
T W M K N S V S L E E N H D C S S W A P	
1741/581	1771/591
ATC TTT GTC AGG CAA TCC AAC TTC AAA CTT CCT GCT GAT TCT ACA GTA CCA ATT ATA ATG	
I F V R Q S N F K L P A D S T V P I I M	
1801/601	1831/611
ATT GGT CCT GGG ACT GGA TTA GCT CCC TTT AGG GGA TTC ATG CAG GAG CGA TTA GCT CTG	
I G P G T G L A P F R G G F M Q E R L A L	
1861/621	1891/631
AAG AAT TCT GGT GTA GAA TTG GGA CCC GCT ATC CTC TTC TTT GGA TGC AGA AAC AGA CAG	
K N S G V E L G P A I L F F G C R N R Q	
1921/641	1951/651
ATG GAT TAC ATA TAT GAA GAG GAG CTA AAC AAC TTT GTG AAA GAG GGA GCT ATC TCC GAA	
M D Y I Y E E E L N N F V K E G A I S E	
1981/661	2011/671
GTT GTT GTT GCT TTC TCA CGT GAG GGA GCT ACC AAG GAA TAC GTA CAA CAT AAA ATG GCG	
V V V A F S R E G A T K E Y V Q H K M A	
2041/681	2071/691

16/20

FIG. 9b (3)

GAG AAG GCT TCC TAC ATC TGG GAA ATG ATC TCT CAA GGT GCT TAT CTT TAT GTA TGT GGT
E K A S Y I W E M I S Q G A Y L Y V C G
2101/701 2131/711
GAT GCC AAG GGC ATG GCT AGA GAC GTA CAT CGA ACT CTC CAC ACC ATT GCC CAG GAA CAG
D A K G M A R D V H R T L H T I A Q E Q
2161/721 2191/731
GGA TCT TTG GAC AAC TCG AAG ACC GAA AGC TTG GTG AAG AAT CTA CAG ATG GAT GGA AGG
G S L D N S K T E S L V K N L Q M D G R
2221/741 2251/751
TAT CTA CGT GAT GTG TGG TGA TTG ATT TTT TCA GCA CGG TTA CAA TCT AGC TTC ATC AAA
Y L R D V W * L I F S A R L Q S S F I K
2281/761 2311/771
GAA CGC GCT TGA GAA GCA TAA ATC TTA GTT GCA GAG ATG TTG ATT TCA GAA GAA ATG CTT
E R A * E A * I L V A E M L I S E E M L
2341/781 2371/791
TAT ATA CTT GAG GTA GCG GAC ATT AAT CCT TTT CTC TCT CTC TAA ACT GTT AAT CCT GTA
Y I L E V A D I N P F L S L * T V N P V
2401/801 2431/811
AAA AAG GGA TTG CTG TTT GTG TTT GCT CGC AAT CAA TTA AGT TAT ATT CTT TGG TCT ATG
K K G L L F V F A R N Q L S Y I L W S M
2461/821 2491/831
GCA TTC GTT AGA CAA ATA TAT TAA CGA GTT TGT CCG TTA TAT ATG ACA TAT GAA ACA AAA
A F V R Q I Y * R V C P L Y M T Y E T K
2521/841 2551/851
GAA CTT CTG TTT GGA GGA AGA GAA AAA AAA AAA AAA AA
E L L F G G R E K K K K

17/20

FIG. 10a (1)

```
1 AAGCTTCAGAGTCTCTGCTAATT ATG GGT TCG AAT AAT TTA GCT AAT TCG ATT GAA TCG ATG TTA 65
1 M G S N N L A N S I E S M L 14

66 GGA ATA TCA ATA GGA TCA GAA TAT ATT TCT GAC CCA ATT TTC ATT ATG GTC ACA ACT GTA 125
15 G I S I G S E Y I S D P I F I M V T T V 34

126 GCT TCA ATG CTG ATT GGA TTT GGT TTC TTC GCA TGT ATG AAA TCT TCG TCT TCT CAA TCA 185
35 A S M L I G F G F F A C M K S S S S Q S 54

186 AAA CCT ATT GAA ACT TAT AAA CCA ATA ATT GAT AAA GAA GAA GAG GAG ATT GAA GTT GAT 245
55 K P I E T Y K P I I D K E E E E I E V D 74

246 CCT GGT AAA ATT AAG CTC ACT ATA TTT TTT GGT ACT CAG ACT GGT ACT GCT GAA GGA TTT 305
75 P G K I K L T I F F G T Q T G T A E G F 94

306 GCT AAG GCA TTG GCA GAA GAA ATT AAG GCA AAG TAC AAG AAA GCA GTT GTT AAA GTA GTT 365
95 A K A L A E E I K A K Y K K A V V K V V 114

366 GAC CTG GAT GAC TAT GCA GCC GAG GAT GAT CAA TAT GAA GAG AAA TTA AAG AAA GAG TCT 425
115 D L D D Y A A E D D Q Y E E K L K K E S 134

426 TTG GTG TTT TTC ATG GTA GCC ACT TAT GGT GAT GGT GAG CCA ACT GAC AAT GCT GCG AGA 485
135 L V F F M V A T Y G D G E P T D N A A R 154

486 TTT TAC AAA TGG TTC ACT CAG GAA CAT GAA AGG GGA GAG TGG CTT CAG CAA CTA ACT TAT 545
155 F Y K W F T Q E H E R G E W L Q Q L T Y 174

546 GGT GTT TTT GGT TTG GGT AAC CGT CAA TAC GAG CAT TTC AAC AAG ATC GCG GTA GAT GTG 605
175 G V F G L G N R Q Y E H F N K I A V D V 194

606 GAT GAG CAA CTC GGT AAA CAA GGT GCA AAG CGC ATT GTT CAA GTG GGG CTC GGT GAC GAT 665
195 D E Q L G K Q G A K R I V Q V G L G D D 214

666 GAT CAA TGC ATT GAA GAT GAT TTT ACT GCT TGG CGA GAA TTG TTG TGG ACT GAA TTG GAT 725
215 D Q C I E D D F T A W R E L L W T E L D 234

726 CAG TTG CTC AAA GAT GAG GAT GCT GCT CCT TCA GTG GCT ACA CCG TAT ATT GCT ACT GTT 785
235 Q L L K D E D A A P S V A T P Y I A T V 254

786 CCT GAA TAC AGG GTA GTG ATT CAC GAA ACT ACG GTC GCG GCT CTG GAT GAT AAA CAC ATA 845
255 P E Y R V V I H E T T V A A L D D K H I 274

846 AAT ACT GCT AAC GGC GAT GTT GCA TTT GAT ATT CTC CAT CCT TGC AGA ACC ATT GTT GCT 905
275 N T A N G D V A F D I L H P C R T I V A 294

906 CAA CAA AGA GAG CTC CAC AAA CCC AAG TCT GAT AGA TCC TGT ATA CAT CTG GAG TTC GAC 965
295 Q Q R E L H K P K S D R S C I H L E F D 314

966 ATA TCA GGC TCT TCC CTT ACA TAT GAG ACT GGA GAT CAT GTT GGT GTT TAT GCT GAG AAC 1025
315 I S G S S L T Y E T G D H V G V Y A E N 334

1026 TGC GAT GAA ACT GTC GAG GAA GCA GGG AAG CTG TTG GGT CAA CCC CTG GAT TTG CTG TTT 1085
335 C D E T V E E A G K L L G Q P L D L L F 354

1086 TCA ATT CAC ACG GAT AAA GAA GAC GGG TCA CCC CAG GGA AGC TCA TTA CCA CCT CCT TTC 1145
355 S I H T D K E D G S P Q G S S L P P P F 374
```

1146	CCA	GGT	CCT	TGC	ACC	TTA	CGA	TCT	GCC	CTA	GCA	CGC	TAT	GCT	GAT	CTT	TTG	AAT	CCT	CCT	1205
375	P	G	P	C	T	L	R	S	A	L	A	R	Y	A	D	L	L	N	P	P	394
1206	AGA	AAG	GCT	TCT	CTG	ATT	GCT	CTG	TCC	GCT	CAT	GCA	TCT	GTA	CCC	AGT	GAA	GCA	GAG	AGA	1265
395	R	K	A	S	L	I	A	L	S	A	H	A	S	V	P	S	E	A	E	R	414
1266	TTG	CGC	TTT	TTG	TCA	TCA	CCT	CTG	GGA	AAG	AAT	GAG	TAT	TCA	AAA	TGG	GTA	GTT	GGA	AGT	1325
415	L	R	F	L	S	S	P	L	G	K	N	E	Y	S	K	W	V	V	G	S	434
1326	CAG	AGG	AGT	CTT	TTG	GAG	ATC	ATG	GCC	GAG	TTT	CCA	TCA	GCA	AAA	CCC	CCT	CTT	GGT	GTT	1385
435	Q	R	S	L	L	E	I	M	A	E	F	P	S	A	K	P	P	L	G	V	454
1386	TTC	TTT	GCT	GCA	GTA	GCC	CCT	CGC	TTA	CCG	CCT	CGA	TAC	TAT	TCT	ATC	TCA	TCC	TCT	CCT	1445
455	F	F	A	A	V	A	P	R	L	P	P	R	Y	Y	S	I	S	S	S	P	474
1446	AAG	TTT	GCT	CCC	TCA	AGA	ATT	CAT	GTG	ACG	TGT	GCT	TTA	GTA	TAT	GGT	CAA	AGC	CCT	ACC	1505
475	K	F	A	P	S	R	I	H	V	T	C	A	L	V	Y	G	Q	S	P	T	494
1506	GGA	AGG	GTT	CAC	CGA	GGA	GTG	TGT	TCG	ACA	TGG	ATG	AAG	CAT	GCA	GTT	CCT	CAG	GAT	AGC	1565
495	G	R	V	H	R	G	V	C	S	T	W	M	K	H	A	V	P	Q	D	S	514
1566	TGG	GCT	CCT	ATT	TTT	GTT	CGA	ACG	TCA	AAC	TTC	AAG	TTA	CCA	GCT	GAC	CCC	TCA	ACT	CCA	1625
515	W	A	P	I	F	V	R	T	S	N	F	K	L	P	A	D	P	S	T	P	534
1626	ATT	ATC	ATG	GTG	GGA	CCT	GGT	ACA	GGG	TTA	GCT	CCT	TTC	AGA	GGA	TTT	CTG	CAG	GAA	AGA	1685
535	I	I	M	V	G	P	G	T	G	L	A	P	F	R	G	F	L	Q	E	R	554
1686	ATG	GCC	CTC	AAG	GAA	AAT	GGT	GCT	CAA	CTT	GGC	CCA	GCA	GTG	CTC	TTT	TTC	GGA	TGT	AGG	1745
555	M	A	L	K	E	N	G	A	Q	L	G	P	A	V	L	F	F	G	C	R	574
1746	AAT	CGT	AAT	ATG	GAC	TTC	ATT	TAT	GAA	GAC	GAA	CTA	AAC	AAC	TTC	GTG	GAA	CGA	GGA	GTA	1805
575	N	R	N	M	D	F	I	Y	E	D	E	L	N	N	F	V	E	R	G	V	594
1806	ATT	TCG	GAG	CTA	GTT	ATT	GCC	TTT	TCA	CGT	GAA	GGG	GAA	AAG	AAG	GAA	TAT	GTT	CAA	CAT	1865
595	I	S	E	L	V	I	A	F	S	R	E	G	E	K	K	E	Y	V	Q	H	614
1866	AAG	ATG	ATG	GAG	AAA	GCA	ACG	GAT	GTA	TGG	AAT	GTG	ATA	TCA	GGG	GAC	GGT	TAT	CTC	TAT	1925
615	K	M	M	E	K	A	T	D	V	W	N	V	I	S	G	D	G	Y	L	Y	634
1926	GTG	TGT	GGT	GAT	GCC	AAG	GGA	ATG	GCC	AGA	GAT	GTC	CAT	CGC	ACG	TTG	CAT	ACC	ATT	GCC	1985
635	V	C	G	D	A	K	G	M	A	R	D	V	H	R	T	L	H	T	I	A	654
1986	CAA	GAA	CAG	GGA	CCC	ATG	GAA	TCA	TCT	GCT	GCC	GAA	GCT	GCA	GTA	AAG	AAA	CTC	CAA	GTT	2045
655	Q	E	Q	G	P	M	E	S	S	A	A	E	A	A	V	K	K	L	Q	V	

19/20

FIG. 10b (1)

```

1 tgcagccccgggggatccgccCT  ATG GAA CAA ACT GCG GTT AAA GTC TCT TTG TTT GAT CTA TTT 64
1      M   E   Q   T   A   V   K   V   S   L   F   D   L   F   14

65 TCT TCG ATA CTT AAT GGA AAG TTG GAT CCG TCG AAC TTT TCT TCA GAT TCA AGT GCT GCT 124
15 S   S   I   L   N   G   K   L   D   P   S   N   F   S   S   D   S   S   A   A   34

125 ATT TTG ATT GAA AAT CGT GAG ATT TTA ATG ATC TTA ACA ACT GCT ATT GCT GTT TTT ATC 184
35 I   L   I   E   N   R   E   I   L   M   I   L   T   T   A   I   A   V   F   I   54

185 GGT TGT GGT TTT CTC TAC GTT TGG AGA AGA TCT TCA AAT AAG TCG AGT AAA ATT GTT GAA 244
55 G   C   G   F   L   Y   V   W   R   R   S   S   N   K   S   S   K   I   V   E   74

245 ACT CAG AAA TTG ATC GTT GAA AAG GAA CCA GAA CCT GAA GTT GAT GAT GGA AAG AAG AAG 304
75 T   Q   K   L   I   V   E   K   E   P   E   P   E   V   D   D   G   K   K   K   94

305 GTT ACT ATC TTC TTT GGT ACT CAA ACT GGT ACA GCT GAA GGA TTC GCA AAG GCA CTT GCT 364
95 V   T   I   F   F   G   T   Q   T   G   T   A   E   G   F   A   K   A   L   A   114

365 GAA GAA GCA AAA GCA AGA TAT GAA AAG GCA ATC TTT AAA GTG ATT GAT CTG GAT GAT TAC 424
115 E   E   A   K   A   R   Y   E   K   A   I   F   K   V   I   D   L   D   D   Y   134

425 GGA GCA GAT GAT GAT GAA TTC GAA GAG AAA TTG AAA AAG GAA ACT ATA GCT CTT TTC TTT 484
135 G   A   D   D   D   E   F   E   E   K   L   K   K   E   T   I   A   L   F   F   154

485 TTG GCT ACC TAT GGA GAT GGT GAA CCT ACA GAT AAT GCT GCA AGA TTT TAT AAA TGG TTC 544
155 L   A   T   Y   G   D   G   E   P   T   D   N   A   A   R   F   Y   K   W   F   174

545 ACA GAG GGA GAG AGG GAA ATG TGG CTC CAG AAT CTT CAA TTT GGT GTC TTC GGT CTA GGC 604
175 T   E   G   E   R   E   M   W   L   Q   N   L   Q   F   G   V   F   G   L   G   194

605 AAT AGA CAG TAT GAG CAT TTC AAT AAG GTG GCA AAG GAG GTG GAC GAG ATA CTC ACT GAA 664
195 N   R   Q   Y   E   H   F   N   K   V   A   K   E   V   D   E   I   L   T   E   214

665 CAG GGT GGG AAG CGT ATT GTT CCC GTG GGT CTA GGA GAT GAT GAT CAA TGC ATA GAA GAT 724
215 Q   G   G   K   R   I   V   P   V   G   L   G   D   D   D   Q   C   I   E   D   234

725 GAT TTC ACT GCG TGG CGG GAG TTG GTA TGG CCT GAA TTG GAT CAG TTG CTC CTT GAT GAA 784
235 D   F   T   A   W   R   E   L   V   W   P   E   L   D   Q   L   L   L   D   E   254

785 AGT GAT AAA ACA TCT GTT TCT ACT CCT TAC ACT GCC ATC GTA CCA GAA TAC AGG GTA GTA 844
255 S   D   K   T   S   V   S   T   P   Y   T   A   I   V   P   E   Y   R   V   V   274

845 TTC CAT GAT GCT ACT GAT GCA TCA CTA CAA GAC AAA AAC TGG AGC AAT GCA AAT GGC TAC 904
275 F   H   D   A   T   D   A   S   L   Q   D   K   N   W   S   N   A   N   G   Y   294

905 ACT GTT TAC GAC GTT CAA CAC CCA TGC AGA GCC AAT GTC GTT GTA AAG AAG GAG CTT CAC 964
295 T   V   Y   D   V   Q   H   P   C   R   A   N   V   V   V   K   K   E   L   H   314

965 ACT CCA GTA TCT GAT CGT TCT TGT ATT CAT CTG GAA TTT GAC ATT TCT GGC ACT GGG CTC 1024
315 T   P   V   S   D   R   S   C   I   H   L   E   F   D   I   S   G   T   G   L   334

1025 ACG TAT GAA ACA GGA GAC CAT GTC GGT GTT TAC TCT GAG AAT TGT GTT GAA GTT GTC GAG 1084
335 T   Y   E   T   G   D   H   V   G   V   Y   S   E   N   C   V   E   V   V   E   354

1083 GAA GCA GAG AGG CTA TTG GGT TAC TCA TCA GAC ACC GTT TTT TCA ATC CAT GTC GAT AAA 1144
355 E   A   E   R   L   L   G   Y   S   S   D   T   V   F   S   I   H   V   D   K   374

```

20/20

FIG. 10b (2)

```

1145 GAG GAC GGC TCA CCC ATT AGT GGA AGC GCT CTA GCT CCT CCT TTT CCA ACT CCC TGC ACT 1204
375 E D G S P I S G S A L A P P F P T P C T 394

1205 CTA AGA ACA GCA CTA ACA CGA TAC GCT GAT CTG TTG AAT TCT CCC AAG AAG GCT GCT CTG 1264
395 L R T A L T R Y A D L L N S P K K A A L 414

1265 CAT GCT TTG GCT GCT TAT GCA TCC GAT CCA AAG GAA GCG GAG CGA CTA AGG TAT CTT GCG 1324
415 H A L A A Y A S D P K E A E R L R Y L A 434

1325 TCT CCT GCT GGG AAG GAC GAA TAC GCC CAG TGG ATA GTA GCT AGT CAG AGA AGT CTG CTA 1384
435 S P A G K D E Y A Q W I V A S Q R S L L 454

1385 GTG GTC ATG GCT GAA TTC CCA TCA GCA AAG GCT CCA ATT GGG GTT TTC TTT GCA GCA GTA 1444
455 V V M A E F P S A K A P I G V F F A A V 474

1445 GCT CCT CGC TTG CTG CCA AGA TAC TAT TCT ATT TCA TCT TCC AAT AGG ATG GTA CCA TCT 1504
475 A P R L L P R Y Y S I S S S N R M V P S 494

1505 AGG ATT CAT GTC ACA TGT GCA TTG GTG CAT GAA AAA ACA CCG GCA GGT CGG GTT CAC AAA 1564
495 R I H V T C A L V H E K T P A G R V H K 514

1565 GGA GTG TGT TCA ACC TGG ATG AAG AAT TCT GTG TCT TTG GAA GAA AAC CAT GAT TGC AGC 1624
515 G V C S T W M K N S V S L E E N H D C S 534

1625 AGC TGG GCA CCA ATC TTT GTC AGG CAA TCC AAC TTC AAA CTT CCT GCT GAT TCT ACA GTA 1684
535 S W A P I F V R Q S N F K L P A D S T V 554

1685 CCA ATT ATA ATG ATT GGT CCT GGG ACT GGA TTA GCT CCC TTT AGG GGA TTC ATG CAG GAG 1744
555 P I I M I G P G T G L A P F R G F M Q E 574

1745 CGA TTA GCT CTG AAG AAT TCT GGT GTA GAA TTG GGA CCC GCT ATC CTC TTC TTT GGA TGC 1804
575 R L A L K N S G V E L G P A I L F F G C 594

1805 AGA AAC AGA CAG ATG GAT TAC ATA TAT GAA GAG GAG CTA AAC AAC TTT GTG AAA GAG GGA 1864
595 R N R Q M D Y I Y E E E L N N F V K E G 614

1865 GCT ATC TCC GAA GTT GTT GTT GCT TTC TCA CGT GAG GGA GCT ACC AAG GAA TAC GTA CAA 1924
615 A I S E V V V A F S R E G A T K E Y V Q 634

1925 CAT AAA ATG GCG GAG AAG GCT TCC TAC ATC TGG GAA ATG ATC TCT CAA GGT GCT TAT CTT 1984
635 H K M A E K A S Y I W E M I S Q G A Y L 654

1985 TAT GTA TGT GGT GAT GCC AAG GGC ATG GCT AGA GAC GTA CAT CGA ACT CTC CAC ACC ATT 2044
655 Y V C G D A K G M A R D V H R T L H T I 674

2045 GCC CAG GAA CAG GGA TCT TTG GAC AAC TCG AAG ACC GAA AGC TTG GTG AAG AAT CTA CAG 2104
675 A Q E Q G S L D N S K T E S L V K N L Q 694

2105 ATG GAT GGA AGG TAT CTA CGT GAT GTG TGG TGA TTGgggctagagcgggc 2154
695 M D G R Y L R D V W * 705

```